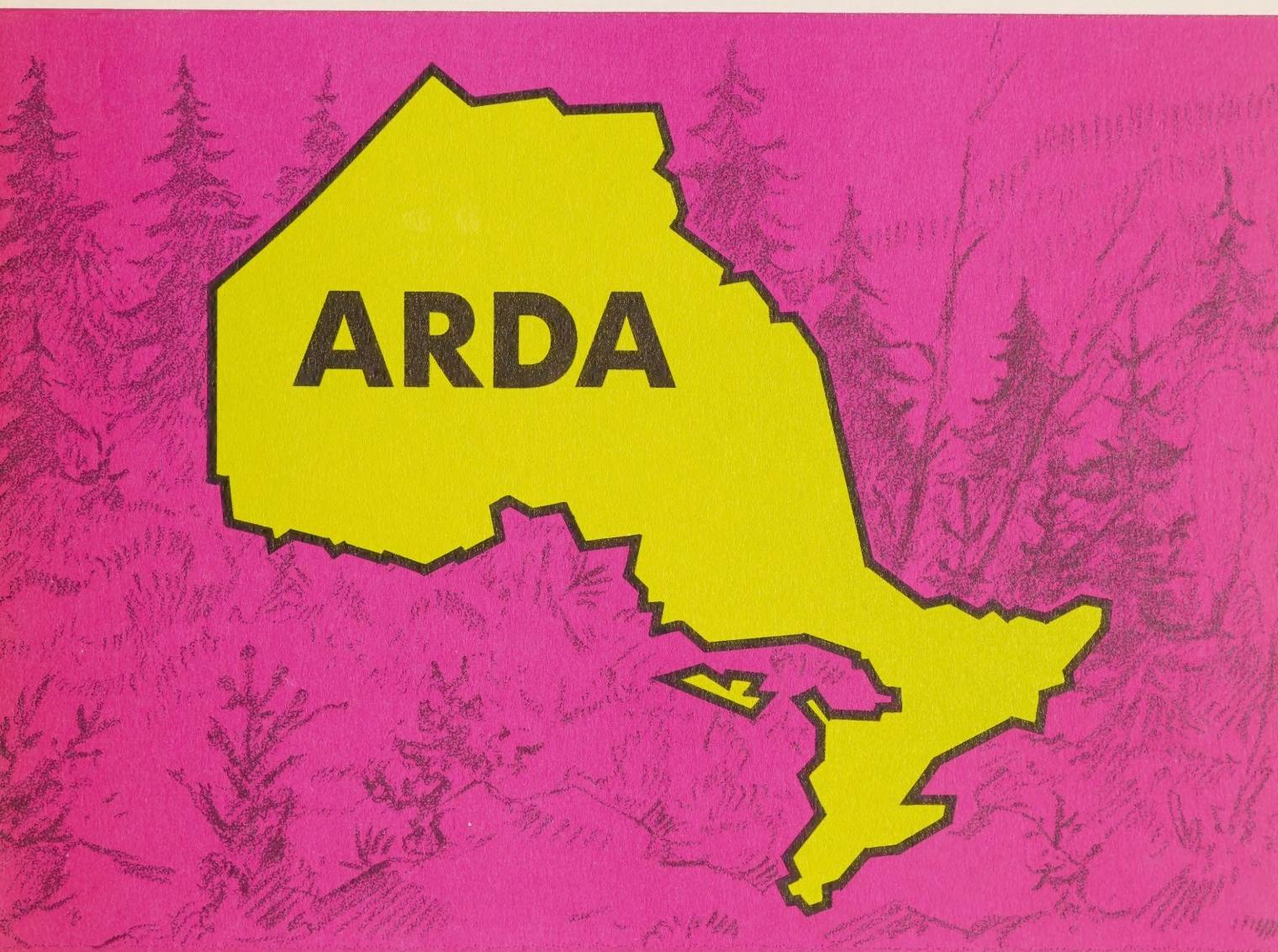


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Social Implications of Arda Crown Land Forest Employment Projects



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SOCIAL IMPLICATIONS OF ARDA
CROWN LAND FOREST EMPLOYMENT PROJECTS

by

David G. Maynard

ARDA BRANCH
ONTARIO DEPARTMENT OF AGRICULTURE AND FOOD
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FOREWORD

Employment of rural people in the harvesting and improvement of publicly owned forests is one of a number of Federal-Provincial cost-shared projects designed to increase income and employment opportunities in low income rural areas. These forestry employment projects are a co-operative venture between ARDA and the Ontario Department of Lands and Forests for the dual purpose of improving public forests and providing supplementary income for low income rural people on a long-term basis.

The central and eastern portions of the Province in which these projects are administered have experienced slow growth relative to other areas in Ontario. Many communities in these areas are, in fact, experiencing population declines. Thus, this region is of prime interest to human and physical resource oriented agencies whose programs are aimed at rural development.

The conclusions of this study give weight to the argument that both human and physical resources be rehabilitated in a co-ordinated manner on a regional basis. This study is published to further ARDA's interest in fostering interdepartmental and inter-agency co-operation in rural development through forestry development programs.

The ARDA Directorate of Ontario recognizes that it is not in the social or economic interest of many rural people, because of their age and limitations of skills, to move to urban communities. In regions where forestry will be a major part of the economy, people in nearby rural communities are needed for employment in both the forests and mills.

H. F. Crown
Director
ARDA Branch
Ontario Department of
Agriculture and Food.

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SOCIAL IMPLICATIONS OF A.R.D.A. CROWN LAND FOREST EMPLOYMENT PROJECTS

INTRODUCTION

Since the inception of Ontario ARDA in 1962, Federal cost-sharing programs have been initiated under the authority of three consecutive ARDA agreements (1962-1965; 1965-1970; 1970-1975). It is apparent from a review of these agreements that there has been a shift from primarily resource oriented activities to projects more directly related to raising the socio-economic position of low income rural people.

Under the first agreement, most ARDA activity was directed toward forest, community pasture and rural water supply development. No specific effort was made to achieve employment of low income rural residents on these projects. The implied assumption was that higher incomes would accrue to rural people through improved resource use. The second agreement incorporated other resource adjustment programs including the Farm Enlargement and Consolidation Program, and various soil and water conservation schemes. These projects were also initiated for the expressed purpose of increasing income and employment opportunities for low income rural people. However, there was a growing body of opinion which challenged the assumption that resource development projects stimulated local income and employment. This is reflected during the period 1965 to 1970 in policies which display a growing awareness of a role ARDA should play in establishing employment oriented projects. Section 30¹ of the second agreement was used as the authorization for industrial incentive grants to increase employment opportunities in low income rural areas. This section formed the basis of Part V of the 1970-1975 Agreement. Part V authorizes grants for the establishment, expansion, or modernization of industries and publicly owned tourist facilities, and forest stand improvement on Crown lands.

STUDY PURPOSE

This study focuses on Crown land forest stand improvement projects which were instituted under the 1965-1970 Agreement and continue under the 1970-1975 Agreement in order to determine their impact on a sample of persons employed on these projects. To achieve this purpose, answers are sought to the following questions:

¹“To provide for other projects to increase income and employment opportunities in Rural Development Areas not allowed elsewhere in this agreement, and to provide for general assistance for rural development in Rural Development Areas, the Federal Minister may make available out of the annual allotment to the province a grant not to exceed the lesser of:

- (a) Three dollars per rural family in Rural Development Areas
- (b) One-half of the total annual expenditure of the province upon such other projects.”

1. Were the right workers selected for these forestry projects?
2. What are the social and economic characteristics of these forestry workers which, if identified, could help administrators fit programs to the apparent needs?
3. How important to the workers is the family income generated from these projects?
4. What degree of job flexibility do these workers have as reflected by their qualifications and attitudes?

METHODOLOGY

In the summer of 1971, a personal interview (Appendix 1) was completed on a sample of persons employed during the winter of 1970-71 on ARDA-sponsored forest stand improvement projects in each of six townships in Hastings and Renfrew Counties. In Brudenell Township, all clients were contacted because most of these workers had been employed on this project for two previous seasons and had supplied some social and economic data for investigations conducted by ARDA field personnel. In the remaining five townships, approximately 50 percent of the clients were randomly selected for interviews (Table I).

Table I. INTERVIEWS OF FORESTRY WORKERS

County	Township	No. on Project	No. Interviewed
Hastings	Dungannon	14	6
	Mayo	18	7
	Monteagle	14	7
Renfrew	Sebastopol	14	7
	Lyndoch	17	8
	Brudenell	19	19
	Total	96	54

THE PROBLEM IN CONTEXT

The first forest stand improvement project commenced on December 2, 1968 with fifteen men selected to work in Brudenell Township, Renfrew County. The initial representation to ARDA for adoption of this project was made by Renfrew County Council. In 1969, this project was renewed and an additional project was established in Sebastopol Township. In the fall of 1970, approval was granted for a three-year project terminating after the winter of 1972-73 for Brudenell and Lyndoch Townships. At the same time, a project was renewed in Sebastopol Township, and Monteagle, Mayo, and Dungannon Townships in northern Hastings County were authorized to conduct forest stand improvement projects.

Operation of these projects is a joint venture under the co-operation of ARDA, the Ontario Department of Lands and Forests, and local municipal officials. Representatives of these three groups participate in the selection of appropriate persons to work on the projects. Up to the present, selection has been performed largely on the recommendation of township reeves who are familiar with many persons in their areas including those on welfare. The Department of Lands and Forests manages these projects by delimiting forest areas for improvement, and supervising employees. ARDA provides funds to cover workers' wages and rental payments to persons supplying horses and chain saws.

Although forest stand improvement projects are aimed at enhancing income and employment opportunities for rural people, its program strategy is quite different from other projects authorized under Part V of the Agreement. Industrial and tourist development projects, once they have received an initial infusion of government capital for establishment, should generate income and employment opportunities in perpetuity. However, forest stand improvement projects are financed annually by ARDA, and the projects are authorized for relatively short-term periods. More important, these projects are established on an ad hoc basis and are not related to any comprehensive economic development program or any forest resources development program. Therefore, these forest stand improvement projects' contribution toward the long-run development of the area and the creation of permanent economic activity is incidental and cannot be determined.

The dangers of the present approach are threefold. First, it cannot be predicted whether any long-run economic benefit will be derived from the improved timber quality and quantity. Secondly, the lack of co-ordination between ARDA and other planning and resource development oriented departments and branches at various government levels creates the potential problem of these organizations working at cross-purposes. Thirdly, persons employed on forest stand improvement projects may be encouraged to remain in an area when, in the absence of any permanent adjustment, they would be better advised to seek employment in more viable areas. There may be families who develop a dependency on the income from these forestry projects who would be left with few alternatives if these projects were discontinued.

The present evaluation of the effectiveness of forest stand improvement projects is performed in the light of this uncertainty in the future development of Renfrew and Hastings Counties. In the absence of an overall plan, these projects can be viewed only as stop-gap measures to temporarily alleviate the poverty of selected individuals; therefore, there must be very careful selection of persons chosen to work on the forestry projects. It would be a misallocation of public funds to employ a person who has alternate employment opportunities in the open market. For example, a man in his early twenties with Grade 12 education and no dependents, whose only reason for living in the area is because he prefers to live there, should not be employed on government subsidized forest stand improvement projects. Such a person should have the flexibility to relocate or acquire skills which are demanded in the open market. However, a man in his fifties with no skills, little formal education and several dependents may lack the flexibility to adapt to a new job or new location. In this case, it may be in his and society's best interests for him to remain in his present location and acquire sufficient work to maintain his self-esteem and support his family while his children achieve as much education as they want or need.

POVERTY

The stated purpose for establishing the forest stand improvement projects is to provide alternative income and employment opportunities for low income rural residents. Therefore, if these projects are to accomplish this purpose, there must be a systematic means of selecting persons most in need of the extra income. In order to establish criteria to assess the eligibility of applicants for employment in forest stand improvement projects, it is essential that there be an operational definition of poverty. The author makes no claim that the following attempt at a definition has universal application. Rather, it is an effort to arrive rationally at a definition suitable for establishing eligibility criteria to evaluate the selection of workers in the past and guide hiring in the future only for ARDA forest stand improvement projects. If the operational definition derived here, or any other definition agreeable to the ARDA administration, is applied in these projects, care must be taken to continually review its applicability in the light of changing social and economic conditions and society's changing concept of poverty.

The difficulties of deriving such a definition are clearly presented in the Economic Council of Canada's Fifth Annual Review. "First, it is a relative concept. Second, while the availability of relevant statistics compels it to be discussed. . . largely in terms of low incomes, it means something more than simple income deficiency".¹ Thus, the concept of poverty varies among geographical areas and different individuals and changes over time. Following is a further statement by the Economic Council of Canada which implies that poverty can be defined on only an individual basis: "The problem of poverty in developed industrial societies is increasingly viewed not as a sheer lack of essentials to sustain life, but as an insufficient access to certain goods, services and conditions of life which are available to everyone else and have come to be accepted as basic to a decent, minimum standard of living."² Hence, poverty bears a high correlation with low income, but one of the characteristics of poverty cases is the sense of entrapment and hopelessness of their situation. A person may have a low income, but because of favorable prospects in the near future, he may not feel poverty-stricken. Thus, it can be argued that poverty is a measure of a person's satisfaction with his present condition. However, if carried to its logical conclusion, there may be millionaires who could be considered poverty cases because they are not satisfied with their status. Therefore, is society obligated to provide the extra funds that will help him achieve a state of satisfaction? On the other hand, a head of a household may be penniless yet very happy with his condition because of certain advantages he has that cannot be measured in monetary terms. Does society have a responsibility to make sure this man has employment to generate sufficient income to feed and clothe his children and permit them to achieve the education they desire?

1 Economic Council of Canada, Fifth Annual Review (Ottawa: Queen's Printer, 1968). p. 104

2 Ibid., p. 104-5

Thus, any public program which provides income supplements should have a rationally derived definition of poverty which can be expressed in monetary terms. This minimum income level should be one that the majority of society can agree to, and one that has a built in flexibility so it can be changed as society's ideas of what constitutes poverty change. However, income should not be applied as a factor in isolation. Trained counsellors must investigate other factors related to poverty in order to assess each applicant's need for public assistance. Therefore, the final decision on the amount of public assistance required by a client would be a subjective one arrived at by a trained counsellor who bases his recommendations on objectively defined criteria. The above comments form the basis of defining poverty and establishing eligibility criteria in terms of individual employee's net income, and flexibility to relocate, retrain, or seek alternate employment as reflected through the indicators of age and education.

ELIGIBILITY CRITERIA

Income

In this study, the factors selected for the development of eligibility criteria for employment in ARDA forest stand improvement projects in eastern Ontario are income, age and education. Derivation of the income criterion is based on the Economic Council of Canada's definition of poverty as outlined in its Fifth Annual Review. Because the Council based its definition on 1961 census material related to living costs in urban centres of 15,000 or more population, their findings are modified for this study.

Low income families were defined by the Council as those "with incomes insufficient to purchase much more than the basic essentials of food, clothing and shelter."¹ On the average, it was found that families spent approximately one-half of their income on these needs. Using the very liberal approach of defining families in poverty as those who spend more than 60 percent of their income on necessities, 41 percent of the 1961 non-farm population were poverty cases. This definition resulted in a poverty cut-off level of \$2,000 for a single person, \$3,500 for a family of two, \$4,000 for families of three or four, and \$5,000 for families of five or more.

Since 1961, the consumer price index has increased approximately 35 percent. However, costs of living are generally lower in rural areas. This income criterion, therefore, is applied to the rural areas under consideration in this study on the assumption that the general rise in living costs will largely off-set the difference between urban and rural living costs so that these income levels developed for urban areas in 1961 are applicable to rural areas in 1971. Because this criterion established that 41 percent of the non-farm population were in a low-income category, it is a very liberal definition to employ. Thus, it is safe to say that any person on the forestry projects deemed not eligible because he has an income above these levels does not deserve public support.

Age and education

These two factors are discussed in combination because both are indicators of the feasibility of retraining and relocation, and hence a person's potential for alternate

¹ Ibid., p. 08

employment. It is generally recognized that because of a number of social and psychological factors older persons are generally less flexible than younger persons, and although it is illegal to discriminate against potential employees because of age, employers continue to show a preference for younger employees. However, persons under forty generally maintain a high flexibility. Therefore, for purposes of this study, persons under forty, depending on their education, are considered not eligible for ARDA forestry employment.

The minimum education requirement for admission to any Canada Manpower skill training course is Grade 8. Most skill training requires more than Grade 8 for admission which necessitates academic up-grading for many individuals before they can enroll in a skill training course. Thus, the retraining of someone with less than Grade 8 formal education has little merit, and these persons are considered eligible for employment on ARDA forestry projects. Any individual over forty years of age who satisfies the income criterion is considered eligible. Persons under forty with less than Grade 8 education are also considered eligible if they meet the income criterion. However, any person under forty years of age with Grade 8 or more education is considered not eligible for forestry employment regardless of his income. It is assumed that these persons have the potential and flexibility for relocation and retraining and they should not be encouraged to remain in a slow growth area by ad hoc public programs which may be discontinued at any time.

ELIGIBILITY OF ARDA FORESTRY WORKERS

By applying the previously mentioned income, age and education criteria to a random sample of fifty-four persons employed on ARDA forest stand improvement projects in the winter of 1970-71, thirty-three (61 percent) are considered eligible and twenty-one (39 percent) are deemed not eligible. Of the twenty-one ineligible clients, ten are disqualified because of incomes which exceed the minimum, ten have a combination of age and education which provide them with the flexibility to retrain or relocate, and one has a conflict of interests. Six of the ten clients with excessive incomes would also not qualify under the age and education criteria.

The lack of application of standard selection criteria by project employment selection committees is quite evident in a comparison of the number of ineligible workers in each township (Table 2). In Dungannon and Sebastopol Townships, 83 and 86 percent of the

Table 2. ELIGIBILITY OF WORKERS BY TOWNSHIP

Township	Number Interviewed	Number Eligible	Number Not Eligible	% Not Eligible
Dungannon	6	1	5	83
Mayo	7	4	3	43
Monteagle	7	5	2	29
Sebastopol	7	1	6	86
Lyndoch	8	7	1	13
Brudenell	19	15	4	21
Total	54	33	21	39

workers respectively are deemed not eligible for forestry employment. The best selection was performed in Lyndoch and Brudenell Townships where 13 and 21 percent respec-

tively are considered not eligible. The generally poorer selection in Hastings County is attributable to local municipal officials being largely responsible for hiring the workers. There was insufficient participation by ARDA personnel to ensure that ARDA's goals would be met. In Sebastopol Township, the normal hiring procedures were not followed and a local brushing contractor was given the authority to hire men and manage a forest improvement project. This system will be discontinued in subsequent years.

To permit forestry worker selection committees to make a rational choice of eligible workers, the author developed an application form for use in selecting workers for the 1971-72 season (Appendix II). This form is designed for completion by an ARDA counsellor in consultation with the applicant. Confidence in the validity of the information supplied by applicants can be ensured only if this procedure is followed. Therefore, unless ARDA's counsellors participate in completing the application form, and ARDA is represented on employee selection committees, the success measured in social terms of ARDA forest stand improvement projects will be limited.

DESCRIPTION OF FORESTRY WORKERS SAMPLE

Employment Status

Considering the part of the year in which these workers are not engaged on forest stand improvement projects, they can be grouped into four basic employment status categories (Table 3). Eighteen (33 percent) have relatively small farming operations

Table 3. EMPLOYMENT STATUS OF FORESTRY WORKERS PRIOR TO WORKING ON STAND IMPROVEMENT PROJECTS

Employment Status	Number						Total	Percentage		
	Renfrew		Hastings							
	Brudenell	Lyndoch	Sebastopol	Monteagle	Mayo	Dungannon				
1. Part-time farming	8	2	4	2	2	0	18	33		
2. Unemployed	5	4	0	0	0	1	10	19		
3. Seasonal labor, summer only	6	2	2	5	5	4	24	44		
4. Self-employed	0	0	1	0	0	1	2	4		
Total	19	8	7	7	7	6	54	100		

sufficient to provide employment during the summer, but they are free to participate in the forestry projects in the winter. Ten (19 percent) are unemployed during the remainder of the year. Seasonal summer labor, principally construction work, occupies twenty-four (44 percent) of the sample. Only two persons (4 percent) are self-employed in non-farm work when not working on ARDA forestry projects. There appear to be regional differences in the employment status of forestry workers. Part-time farmers predominate in Brudenell and Sebastopol Townships in Renfrew County. There is a marked concentration of unemployed persons selected for work on forestry projects in Brudenell and Lyndoch

Townships, Renfrew County, and the greatest proportion of workers with seasonal non-farm labor is in the three townships of Hastings County. These differences are attributed to variations in hiring procedures rather than differences in the general population.

ARDA forestry projects provide income for many of these people at a time of the year when little other employment exists in the area. However, forty-two (78 percent) persons prefer year round employment. Nine prefer seasonal winter work and three are undecided.

Age and education

Persons in their forties (15) and fifties (14) form the largest age groups on the forestry projects (Table 4), and the workers range in age from 18 to 65 years. The education

Table 4. AGES OF FORESTRY WORKERS

<u>Age</u>	<u>Number</u>
<20	2
20 - 29	6
30 - 39	12
40 - 49	15
50 - 59	14
60 +	5
Total	<u>54</u>

achieved by these persons would generally be considered low (Table 5), and ranges from no formal education to Grade 12. Nineteen (35 percent) have less than Grade 8, an equal

Table 5. COMPARISON OF AGE AND EDUCATION OF FORESTRY WORKERS

Age	Education Completed		
	<Grade 8	Grade 8	>Grade 8
<40	4	6	10
40+	15	13	6
Total	19	19	16

$$\chi^2 = 6.77$$

significance level = 5%

number have achieved Grade 8, and sixteen (30 percent) have more than Grade 8 education. Younger persons in the sample have significantly higher education than the older workers. For example, 50 percent of persons under forty years of age have Grade 8 or less education, whereas 74 percent of those over forty have Grade 8 or less. Of the twenty persons who are under forty years of age, four are considered to have insufficient education to participate in educational upgrading courses.

Number of dependents

The number of persons in each family relying on the forestry worker for financial support ranges from none to ten (Table 6). In most cases where one dependent is indicated

Table 6. NUMBER OF DEPENDENTS IN FORESTRY WORKERS' FAMILIES

No. of Dependents	No. of Families
0	8
1	7
2	8
3	9
4	8
5	6
6	1
7	5
8	1
9	0
10	1
Total	54

it is a wife that is being supported. Twenty-five families, or approximately one-half of the sample, have from one to three dependent children or other dependents in the household. Approximately one-third of the families have four or more dependent children or other dependent individuals. Therefore, thirty-nine (72 percent) of the families interviewed have one or more dependent children or other dependents.

Included in the number of dependents are two children in one family who left school but are living at home unemployed. Eleven persons representing eight families are living at home but are employed and, therefore, are not counted as dependents. Only six families include other persons that are not considered part of the nuclear family. In four cases, there is one extra member, and two families respectively consist of three and four extended family members. Only three of the eleven extended family members are dependent on the forestry worker for support. On the average, these forestry workers' households consist of 5.5 persons. This is slightly higher than the area average of 4.5 persons per household reported by Canada Census.

Income

In categorizing the family incomes of forestry workers for 1970, it is necessary to delete four individuals who live with their parents because the total family income is unknown in these cases. Of the remaining fifty workers, 44 percent have family incomes less than \$3,000 (Table 7). Thirty-six percent of the incomes are between \$3,000 and \$5,000 and 20 percent have \$5,000 or more family income.

Table 7. 1970 FAMILY INCOME OF FORESTRY WORKERS

Income	No. of Families	Percentage
< \$3,000	22	44
\$3,000 - \$4,999	18	36
\$5,000+	10	20
Total	50	100

Facilities in the home

Many of the forestry workers' homes lack the amenities which are considered necessary by most Ontario residents (Table 8). In fact, many households do not contain more than one of these facilities (Table 9).

Table 8. NUMBER OF FORESTRY WORKERS' HOUSES
LACKING SELECTED FACILITIES*

Facility	Number	%
Electricity	3	6
Telephone	17	31
Running water	22	41
Indoor bathroom	29	54
Hot water heater	26	48
Central heating	41	76

*taken from sample of 54 houses

Table 9. NUMBER OF FACILITIES LACKING IN
EACH FORESTRY WORKER'S HOUSEHOLD

No. of Facilities Missing	No. of Households	%
None	9	17
1	15	28
2	4	7
3	5	9
4	8	15
5	10	19
6	3	5
Total	54	100

Only 17 percent of the households contain all facilities listed in Table 8. It is particularly striking that approximately 40 percent of the households lack four or more of these items. In spite of the apparent need for housing improvements by many families, only six (11 percent) replied that they used money from forestry employment for house renovations.

A comparison of the housing facilities of those who are considered eligible for employment with persons deemed not eligible reveals that the houses of eligible workers are more poorly equipped for every item (Table 10). The greatest variation between the two

Table 10. COMPARISON OF MISSING HOUSING FACILITIES OF ELIGIBLE AND INELIGIBLE FORESTRY WORKERS*

Facility	Eligible		Not Eligible	
	No.	%	No.	%
Electricity	3	9	0	0
Telephone	14	42	3	14
Running water	15	45	7	33
Indoor bathroom	20	61	9	43
Hot water heater	19	58	7	33
Central heating	26	79	15	71

*33 persons are considered eligible and 21 are not eligible

groups is in the presence of a telephone. Forty-two percent of the eligible workers do not have a telephone whereas only 14 percent of ineligible persons lack telephones. This variation is explained by telephones being considered more of a luxury than other items listed here. Although all percentages are greater for the eligible group, chi-square testing (5 percent level) indicates that eligible clients have significantly fewer telephones and hot water heaters. Other items do not display a statistically significant difference. It is hypothesized that many housing facilities considered necessities by most urban residents are not viewed as such by many rural dwellers. However, the selection of eligible persons based on the age, education and income criteria suggested in this report results in an employee group which lacks many physical amenities.

A further measure of the adequacy of forestry workers' housing is the room-per-person ratio. Bathrooms and hallways are not considered as rooms. Calculation of the room-per-person ratio for fifty-three of the fifty-four interviewees results in thirteen households (25 percent) with less than one room per person, twenty-three (43 percent) with from one to two rooms per person, and seventeen (32 percent) households have two or more rooms per person. There is no significant difference in the room-per-person ratio between eligible and ineligible forestry workers.

Migration of forestry workers' families

In the absence of local income and employment opportunities, a logical alternative is for the younger persons to stay in school long enough to qualify for employment in more dynamic areas. In the sample of fifty-four forestry workers, there are 192 children living either at home or away from home. Ninety children (47 percent) are presently in school, sixty-two (32 percent) are away from home and independent, twenty-seven (14 percent) are pre-school children, eleven (6 percent) children are living at home but employed, and two (1 percent) are unemployed children living with their parents. Of the sixty-two children living away from home, twenty-three (37 percent) continue to live in the north Hastings and western Renfrew County area, four (6 percent) moved to other cities in Ontario east of Peterborough, and thirty-three (53 percent) located outside eastern Ontario. Twenty-five of those not located in eastern Ontario live in south-western Ontario, three are in northern Ontario, and five located in other provinces. The location of two of the children living away from home is unknown.

Summary

Fifty-two of fifty-four forestry workers interviewed can be grouped into three basic employment status categories based on their activities when not engaged in ARDA forestry work (farming, unemployed, and seasonal non-farm work). However, most of these workers prefer permanent year-round employment. The education level of these men is generally low, and the education attained by older workers is significantly lower than for younger workers. A large number of dependents rely on these forestry workers to supply family income. However, 44 percent of these families have annual net incomes under \$3,000. Many of these workers homes lack facilities considered necessities by many Canadians. Thus, many workers families could be considered poor based on numerous social and economic criteria. However, a population decline from 1961 to 1966 of ten to nineteen percent in the townships under consideration, and the tendency of forestry workers' children to locate outside the area indicate that natural socio-economic adjustment is in progress. During the time required to prepare a development strategy for the area, ARDA should view its role as a catalyst in this natural adjustment process. This involves counselling persons who, through no fault of their own, lack the flexibility to adjust independently to changing social and economic conditions.

WILLINGNESS TO RETRAIN AND RELOCATE

In an economically stagnant area such as the north part of Hastings County and the western portion of Renfrew County, in the current absence of a scheme to revitalize the area, the alternative is to encourage persons with potential to retrain and relocate, and provide temporary employment for those lacking potential. Forest stand improvement projects are a partial solution for persons who should remain in the area. Others may have age and education levels indicating a potential for retraining or relocation, but they must also have the willingness to make these adjustments before a change can be effected in their social and economic positions.

Of those not qualifying for forestry employment, ten were disqualified because of age and education levels although their incomes were low, and ten were deemed not eligible because of high incomes. Six of these persons with high incomes also had age and education levels indicating potential for retraining and relocation. Of these sixteen persons with retraining and relocation potential, those with low incomes display slightly

more willingness to make this adjustment than persons with higher incomes (Table 11).

Table 11. THE WILLINGNESS TO ADJUST OF FORESTRY WORKERS WITH POTENTIAL FOR RETRAINING AND RELOCATION

	No.	Willing to Retrain			Willing to Relocate		
		Yes	No	Undecided	Yes	No	Undecided
Low Income	10	3	4	3	3	6	1
High Income	6	1	2	3	1	3	2
Total	16	4	6	6	4	9	3

However, in both cases, this willingness is not pronounced. Only one person said he would both retrain and relocate.

Of the sixteen persons considered to have retraining and relocation potential, only four (25 percent) express a willingness to retrain. It is interesting to note that among the fifty-four workers interviewed, a total of seventeen persons said they are willing to retrain. Therefore, of thirty-eight persons considered to have age or previous education which decreases their potential for retraining thirteen (34 percent) said they are willing to retrain.

Four (25 percent) of sixteen potential cases are willing to relocate and nine (24 percent) of thirty-eight persons with lower relocation potential are willing to relocate. However, if taken separately, age and education display interesting relationships to interviewees' willingness to retrain and relocate. Age and willingness to retrain are significantly related (Table 12). Although approximately the same percentage of those under

Table 12. FORESTRY WORKERS' AGE AND WILLINGNESS TO RETRAIN

Willingness to Retrain	Age			
	Under 40		40 and Over	
	No.	%	No.	%
Yes	6	30	11	32
No	7	35	21	62
Undecided	7	35	2	6
Total	20	100	34	100

$$\chi^2 = 8.29$$

significance level = 2.5%

and over forty years of age are willing to retrain, a significantly greater number of persons under forty are undecided, and the majority of those over forty definitely do not want retraining. Age is not statistically significantly related to willingness to relocate (Table 13). However, the percentages indicate a tendency for those under forty

Table 13. FORESTRY WORKERS' AGE AND WILLINGNESS TO RELOCATE

Willingness to Relocate	Age			
	Under 40		40 and Over	
	No.	%	No.	%
Yes	6	30	7	21
No	10	50	24	71
Undecided	4	20	3	8
Total	20	100	34	100

$$\chi^2 = 2.49$$

not significant

years of age to be both more willing and more undecided about moving than persons over forty. Older persons display greater reluctance to move.

Interviewees' willingness to retrain (Table 14) and relocate (Table 15) is not

Table 14. FORESTRY WORKERS' EDUCATION AND WILLINGNESS TO RETRAIN

Willingness to Retrain	Education Achieved			
	Less than Grade 8		Grade 8 and above	
	No.	%	No.	%
Yes	5	26	12	34
No	12	63	16	46
Undecided	2	11	7	20
Total	19	100	35	100

Table 15. FORESTRY WORKERS' EDUCATION AND WILLINGNESS TO RELOCATE

Willingness to Relocate	Education Achieved			
	Less than Grade 8		Grade 8 and above	
	No.	%	No.	%
Yes	5	26	8	23
No	12	63	22	63
Undecided	2	11	5	14
Total	19	100	35	100

statistically related to the level of education achieved. Also, the percentage of respondents in each category does not reveal any clear trend. There may be slightly more willingness to retrain by those with higher education, but there is virtually no difference in willingness to relocate between those with less than Grade 8 and persons with Grade 8 or more education.

Summary

An examination of persons engaged in ARDA forestry employment reveals they are generally not an easy group to assist through either retraining or relocation. Thirty-eight (70 percent) of the fifty-four cases have age and education levels indicating a very low potential for adjustment. A further six persons (11 percent) who have less than Grade 8 and are over forty years of age, have incomes in excess of the poverty levels outlined in this report and require no adjustment. Therefore, only ten (19 percent) of the sample have both the potential to be retrained and relocated and a level of income considered below the poverty line. Of these ten individuals with the potential and need to upgrade themselves, only three each are willing to retrain and relocate, four do not want retraining and six do not want relocation, and three are undecided about retraining and one is undecided about relocating. It is these ten persons who are in greatest need of immediate professional counselling.

FORESTRY PROJECTS AS A SOURCE OF FAMILY INCOME

A partial indication of the success of forest stand improvement projects is the importance of this income to forestry workers and their families. More than 50 percent of the workers earned between \$1,000 and \$1,499 on these projects (Table 16). The forestry

Table 16. WORKERS' EARNINGS ON ARDA FORESTRY PROJECTS

<u>Amount</u>	<u>No. of Workers</u>
< \$500	5
\$500 - \$999	16
\$1,000 - \$1,499	29
\$1,500+	4
Total	<u>54</u>

employment income earned by each worker as a percentage of his previous year's earnings reveals that income earned from forestry projects supplies a major portion of many families' yearly income (Table 17). The largest category includes twenty-one (39 per-

Table 17. FORESTRY EMPLOYMENT INCOME AS A PERCENTAGE OF PREVIOUS YEAR'S FAMILY INCOME

Percentage of Income	No. of Workers	% of Workers
<25	17	32
25 - 49	21	39
50 - 74	7	13
75 - 99	5	9
100+	4	7
Total	54	100

cent) persons whose income from forestry is between one-quarter and one-half of the previous year's earnings. For seventeen workers (32 percent), forestry income is less than one-quarter, and for sixteen (29 percent) it is more than one-half of their previous yearly income.

As expected, persons considered eligible for forestry employment rely more heavily on this income than those who are disqualified (Table 18). Eighty-five percent of

Table 18. ELIGIBILITY FOR FORESTRY EMPLOYMENT AND PERCENTAGE OF FAMILY INCOME FROM FORESTRY WORK

Percentage of Income	Eligible		Not Eligible	
	No.	%	No.	%
<25	5	15	12	57
25 - 49	17	52	4	19
50 - 74	4	12	3	14
75 - 99	5	15	0	0
100+	2	6	2	10
Total	33	100	21	100

eligible workers received 25 percent or more of their previous year's income from forestry work. On the other hand, only 43 percent of ineligible employees received more than 25 percent of the previous year's income from forestry employment. The ineligible group for whom forestry work supplies more than 25 percent of their previous year's income is inflated by two young persons with no previous work experience.

Interviewees were asked to note what types of expenditures were made with money earned from forestry projects (Table 19). The greatest number responded to food and clothing (89 percent) and debt reduction (52 percent). All other items received relatively little response. Thus, for most people the income earned from forestry employment is

spent largely on necessities. Only two persons did not respond to either food and clothing or debt reduction.

Table 19. TYPES OF EXPENDITURES WITH FORESTRY INCOME*

Type of Expenditure	No. of Responses	%
Food and clothing	48	89
House renovations	6	11
Appliances	2	4
Car	2	4
Debt Reduction	28	52
Holiday	0	0
Education	1	2
Other	9	17

*sample of 54 workers

There is no statistically significant difference between the previous yearly income of forestry workers and their expenditure of money earned on forestry projects (Table 20). However, the percentage of responses within each income category indicates a trend

Table 20. EXPENDITURES OF FORESTRY INCOME COMPARED TO PREVIOUS YEARLY EARNINGS

Expenditures	Income					
	<\$3,000		\$3,000-\$4,999		\$5,000+	
	No.	%	No.	%	No.	%
Food and Clothing	23	88	15	83	10	100
Debt Reduction	15	58	7	39	3	30
Other	11	42	7	39	5	50
No. of persons	26		18		10	

toward lower income persons spending more on debt reduction, and higher income persons spend more on food and clothing and other expenditures.

Brudenell Township

A forest stand improvement project has been operating in Brudenell Township for the past three winters. Certain economic data were collected in previous years by ARDA field staff and this can be used to trace changes that occurred in fifteen families where the head of the household was employed on the project for two or three years. Of these fifteen families, seven worked on the project for three years and eight persons worked

for two years. The indicators of change that are most comparable between earlier information and data collected in the summer of 1971 are housing facilities, car, income and debt.

In only one case was there any change in the housing facilities, and in this instance, a new furnace was installed. Ten workers purchased newer cars since they started work on the project, four are driving the same car, and one never owned a car. Of the ten who purchased different cars, one is new and nine are between five and eight years of age.

Only four of the fifteen interviewees reported that they had no debts both before working on the project and presently. Although it is difficult to determine if the data collected accurately reflects the debt situation, it appears that many have relatively large debts to finance companies at high interest rates. Of the eleven persons reporting debts, seven decreased these debts and four contracted additional debt since taking forestry employment.

The family incomes of seven of these fifteen workers is relatively unchanged since starting work on the project. In these cases, the forestry project substituted for previous employment that is no longer available, and family income was relatively uninterrupted. Seven workers experienced a substantial increase in their annual family incomes, largely because the forestry projects are now available at a time of year when they are normally unemployed. One worker's income decreased because he was unable to acquire work this past summer. In spite of the supplementary income provided on these projects, nine of the fifteen workers considered in Brudenell Township remain below the poverty line outlined in this study. Without the forestry income, five families would slip below the poverty level. One person would have an income above the poverty level if his income from forestry work were discontinued.

Summary

Money earned from forest stand improvement projects tends to be a large proportion of the total family income of these workers, and most families spent all or part of these earnings on food and clothing, and debt reduction. Forestry employment income is particularly important for fourteen of fifteen interviewees who worked more than one year on projects in Brudenell Township.

Summary and Recommendations

The principal problem with ARDA forest stand improvement projects is the lack of a development framework into which they can fit. These projects are implemented on an ad hoc basis with little regard for long-run social and economic implications. Therefore, it is recommended that ARDA, in co-operation with appropriate human and physical resource oriented departments and agencies, formulate a rural development strategy for the slow growth area partly consisting of northern Hastings and western Renfrew Counties. A close liaison should be maintained with the Regional Development Branch to keep abreast of their planning concepts for the area. One of the drawbacks of the present ad hoc approach is that many stand improvement projects are authorized only days before work is to commence. If these projects were tied into an overall development scheme, these projects could be planned years in advance, and the benefits of proper planning would accrue to the projects.

The very liberal selection criteria employed in this study result in the disqualification of 39 percent of the forestry workers employed in 1970-71 forest stand improvement projects. In Dungannon and Sebastopol Townships, over 80 percent of the workers are considered not eligible for public support through employment on these projects. Therefore, it is suggested that more careful selection of workers should be performed on future projects. Good selection can be assured only if an ARDA representative completes the application form in consultation with the applicant and participates on the employment selection committee, and rationally derived selection criteria are used to choose eligible employees. It is felt that the factors of age, education and income are the most appropriate to use in developing eligibility criteria. The following criteria are suggested for immediate use and they should be reviewed constantly and revised as required:

1. applicants are not eligible if their net income is above \$2,000 for a single person, \$3,500 for a family of two, \$4,000 for families of three or four, and \$5,000 for families of five or more; and
2. regardless of their income, applicants who are under forty years of age who have attained Grade 8 or more education are not eligible.

Unless this employee selection process is followed, the social benefits of ARDA forest stand improvement projects will be limited.

Most of the forestry workers interviewed participated in the project because they were either underemployed or unemployed on a seasonal basis. The remaining workers are unemployed when not working on the forestry projects. In addition, most workers stated they preferred to have full time employment. Therefore, income from the forestry work is an important source of family income for most persons, but it is only a partial solution. The high rate of unemployment and the desire by most interviewees to have full time work suggests that ARDA should stimulate the development of year round employment opportunities.

A large portion of the forestry workers' children who left home located outside the northern Hastings and western Renfrew County area. Thus, there is a substantial adjustment to local economic conditions being performed independent of public support. However, there are others who are either less flexible in their thinking or who lack marketable skills who may require encouragement or help to relocate. In particular, ten forestry workers interviewed are potentially retrainable and have incomes below the poverty level. Counselling of these persons may result in their being placed in permanent employment at wages above the poverty level.

In conclusion, the forest stand improvement projects provide a very important short-term source of income for family living for most workers. However, the long-run success of these projects can be ensured only through the formulation of a rural development strategy for these areas, better selection of workers based on rationally derived criteria, and employment counselling for any applicant for forestry work who could benefit from this service.

APPENDIX I

CONFIDENTIAL

FOREST IMPROVEMENT ON CROWN LAND

ASSESSMENT OF FOREST WORKERS

Date of Interview _____

NAME _____ Telephone No. _____

ADDRESS _____ County _____ Township _____

Lot _____ Con. _____

1. Following are some questions I would like to ask about you, your family, both at home and away, and any additional dependents you have.

2. Have you or your wife received any additional training since leaving school?

	Type of Training	Months completed
Client		
Wife		

3. Following are some questions about your home before you started this forestry employment project and presently.

	Before Project	Present
Age		
Number of rooms*		
Type of construction (brick, stucco, frame)		
General condition**		

*Do not include bathrooms or halls

**For general condition, use 'poor', 'fair', 'good' or 'excellent'

4. I would like to ask you about the facilities in your house before you started the forestry project and presently. (if the interviewee is in the same house, specify any changes since beginning forestry work.)

	Past	Present
Electricity		
Telephone		
Running water		
Indoor bath		
Hot water heater		
Central heating		
Radio-record player combination (stereo)		
Television (B & W or color)		
Deep freeze		
Washing machine (automatic)		
Clothes drier		

5. Is your present home owned or rented? owned rented

6. Comparing your housing conditions and facilities in the home before and after working on the forestry project, would you say you were

- much worse off
 - worse off
 - same
 - better off
 - much better off

7. (a) Before working on the forestry project, did you own a car in running condition?

yes no

If yes, please describe it.

Year _____ Make _____ Year Purchased _____

(b) Do you presently own a car in running condition? yes no

Is this the same car described above? yes no

If not, please describe it.

Year _____ Make _____ Year Purchased _____

(c) Do you own a snowmobile? yes no

8. How many seasons have you worked on the forestry project?

9. Would you give a brief history of your employment starting two years before your first forestry project to the present?

10. Would you give a brief history of your wife's employment over the last three years?

11. How did you find out about the possibility of work on this project?

- (a) friends or neighbors _____
 - (b) advertising _____
 - (c) municipal officials _____
 - (d) ARDA personnel _____
 - (e) Lands and Forests personnel _____
 - (f) other (specify) _____

12. Last winter, did you work for the full length of the project? yes no

If not, how many days did you work? _____

If not, why did you not work the full season?

13. (a) How far did you have to travel to work?

miles

(b) What means of transportation did you use to get to work?

(c) Did you have any problems getting to work?

yes no

If yes, why? _____

14. What did you like about working on this project?

15. Are there any aspects of the job you would like to see improved?

16. Do you prefer a seasonal job such as the forestry project or would you rather have full-time employment?

Seasonal
Full-time

17. Did you provide the following on the projects? Horses

yes no
rent/day _____

Chain saw
yes no
rent/day _____

If yes, do you feel that this is a fair rate?

yes no

18. If you were employed in winters previous to the forestry project, is this type of employment still available?

yes no

19. If this forestry project were discontinued, would you remain in this community?

yes no

If yes, what would you do? _____

20. Would you be willing to retrain for off-farm employment?

yes no

If not, why? _____

21. If a job were available in Southwestern Ontario, would you move?

yes no

If not, why? _____

22. If a job were available in any other community in Eastern Ontario, would you be willing to move?

yes no

23. If you would move, what is the maximum distance from where you are presently living?

_____ miles

24. What did you use the money for from forestry employment?

- (a) food and clothing _____
- (b) house renovations _____
- (c) appliances _____
- (d) car _____
- (e) debt reduction _____
- (f) holiday _____
- (g) education _____
- (h) other (specify) _____

25. Do you intend to work on the project next winter?

yes no

Why? _____

Following are some questions I would like to ask you about your family financial matters. Once again, I stress that this information is strictly confidential.

26. In the past year, what has been the salary (off-farm) income of family?

- (a) client \$ _____
 - (b) wife \$ _____
 - (c) contributions made by other members of the family who live at home (i.e. room & board) \$ _____
- TOTAL \$ _____

27. If self-employed, what is his net income?

- (a) farming \$ _____
 - (b) non-farm \$ _____
- TOTAL \$ _____

28. If wife is self-employed, what is her net income?

(a) farming \$ _____
(b) non-farm \$ _____

TOTAL \$ _____

29. Other income:

(a) pensions \$ _____
(b) family allowance \$ _____
(c) welfare \$ _____
(d) other sources: (specify) \$ _____

TOTAL \$ _____

GRAND TOTAL (26 + 27 + 28 + 29) \$ _____

30. If client is a farmer, what is the size of the farm?

	Owned	Rented
Total acres		
Cultivated acres		
Woodlot		

31. What is his current debt structure?

Type & Purpose of Loan	Source(s)	Term (years)	Year Borrowed	Amount Borrowed	Rate of Interest	Annual Payments	Amount Still Owing
(a) land							
(b) buildings							
(c) machinery incl. truck and car							
(d) livestock							
(e) feed							
(f) fertilizer & crop supplies							
(g) tax arrears							
(h) personal							
(i) Other: (specify)							

TOTAL ANNUAL PAYMENTS \$ _____

TOTAL LIABILITIES \$ _____

True Interest Rate:

$$\frac{\text{Loan cost}}{1/2 \text{ of Loan}} \times \frac{\text{No. of Payments}}{\text{No. of Years}} \times \frac{1}{\text{No. of Payments} + 1} \times \frac{100}{1}$$

= _____ %

32. If you are a full-time or part-time farmer, do you plan to do the following in the next few years?

- (a) increase farm size _____
- (b) decrease farm size _____
- (c) change enterprise _____
- (d) change buildings _____
- (e) clear and/or drain land _____
- (f) take an off-farm job _____
- (g) retire _____

cont'd.

- (h) increase off-farm work _____
- (i) decrease off-farm work _____
- (j) rent out farm _____
- (k) sell farm _____
- (l) decrease stock _____
- (m) increase stock _____
- (n) education _____
- (o) other: (specify) _____

33. What do you feel is the future of your community?

34. Would you like to see the forestry employment project continue? yes no

Interviewer's comments:

APPENDIX II

CONFIDENTIAL

ONTARIO ARDA

APPLICATION FOR FORESTRY EMPLOYMENT

Project Location _____

Social Insurance No.

Date _____

NAME _____

MAILING ADDRESS _____ TELEPHONE _____

COUNTY _____ TOWNSHIP _____ Lot. ___ Con. ___

1. Complete the table below concerning your family and other dependents. This should include you and your wife, children at home and away, and other dependents.

2. Give a brief history of your employment for the past three years. Also indicate any periods of unemployment.

From:	To:	Description:

3. Give a brief history of your wife's employment over the past three years.

From:	To:	Description:

4. How did you find out about the possibility of work on this project?

- (a) friends or neighbors _____
- (b) advertising _____
- (c) municipal officials _____
- (d) ARDA personnel _____
- (e) Lands & Forests personnel _____
- (f) other (specify)

5. How far will you have to travel to work? (miles) _____

What means of transportation would you use? _____

Do you anticipate any problem in getting transportation to work? Yes _____ No _____

If yes, explain _____

Following are some questions concerning your family financial matters. Any information you provide will be treated as strictly confidential.

6. For the past year, list the sources of income to support your family.

Person	Source of Income	Net Amount
		\$ _____
		\$ _____
		\$ _____
		\$ _____
		\$ _____
Other income:	pensions	\$ _____
	family allowances	\$ _____
	unemployment insurance	\$ _____
	other:	\$ _____
	_____	\$ _____
	_____	\$ _____
	TOTAL INCOME	\$ _____

7. Estimate the amount of money you need per year to support your family. \$ _____

8. Indicate if you presently have any of the following types of debt.

Type and Purpose of Loan	Lender	Amount Borrowed	Year Borrowed	Amount Remaining	Annual Payments
Land					
Buildings					
Machinery incl. truck & car					
Farm debts					
Tax arrears					
Personal					
Other: (specify)					

(signature)

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